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10/739,147	12/19/2003	Michael Simakov	033851-005	2538

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EXAMINER	
WASHBURN, DOUGLAS N	

ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H·A

Office Action Summary	Application No.	Applicant(s)	
	10/739,147	SIMAKOV ET AL.	
	Examiner	Art Unit	
	Douglas N. Washburn	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 October 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,11 and 12* is/are rejected.

7)☒ Claim(s) *10 and 13-15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 October 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5, 7-9 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirai et al. (US 5,815,400)(Hereafter referred to as Hirai).

Hirari teaches:

An input module means for making a supply of input objects accessible that serve to produce a description of a workpiece, there being one or more input parameters belonging to each input object, the input module means permitting the selection of input objects and inputting their input parameters and making a supply of measurement objects accessible, from among which measurement objects are selected and linked with input objects or input parameters in regard to claim 1

(e.g.; column 139, lines 35-54);

Display module means for visually displaying an image of a tool resulting from a chosen selection of input objects and inputs in regard to claim 1

(e.g.; column 391, lines 41-44);

Machining program module means for generating from selection of input objects and parameters to be input, a machine control program serving to control a machine tool in regard to claim 1

(e.g.; column 139, lines 35-54);

Measurement program module means which from selection of measurement objects and their linkage with input objects, serves a measurement program for controlling a measuring device in regard to claim 1

(e.g.; column 139, lines 35-54);

A display module means determines, from selected input objects and associated inputs, a geometric model, which defines the surface of a tool in regard to claim 3

(e.g.; column 8, lines 28-33);

A machine tool comprises a grinding machine in regard to claim 5

(e.g.; column 369, lines 33-54);

A measuring device comprises a measuring machine in regard to claim 7

(e.g.; column 18, lines 38-43; figure 1);

Actuating an input module in regard to claim 8

(e.g.; column 139, lines 35-54);

Actuating a display module in regard to claim 8

(e.g.; column 391, lines 41-44);

Actuating a machining program module in regard to claim 8

(e.g.; column 139, lines 35-54);

Actuating a measurement program module in regard to claim 8

(e.g.; column 139, lines 35-54);

Determining, from selected input objects, each linked with a machining operation, and from associated inputs, a geometrical model defining the surface of a tool in regard to claim 9

(e.g.; column 8, lines 28-33);

And a measurement object is associated with a measuring operation, and measurement parameters are defined on the basis of a geometric model in regard to claim 12

(e.g.; column 8, lines 28-33).

Claim Rejections - 35 USC § 103

2 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 4, 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai in view of Susnjara (US 6,779,175)(Hereafter referred to as Susnjara).

Hirai teaches:

An input module means for making a supply of input objects accessible that serve to produce a description of a workpiece, there being one or more input parameters belonging to each input object, the input module means permitting the selection of input objects and inputting their input parameters and making a supply of measurement objects accessible, from among which measurement objects are selected and linked with input objects or input parameters in regard to claim 1

(e.g.; column 139, lines 35-54);

Display module means for visually displaying an image of a tool resulting from a chosen selection of input objects and inputs in regard to claim 1

(e.g.; column 391, lines 41-44);

Machining program module means for generating from selection of input objects and parameters to be input, a machine control program serving to control a machine tool in regard to claim 1

(e.g.; column 139, lines 35-54);

Measurement program module means which from selection of measurement objects and their linkage with input objects, serves a measurement program for controlling a measuring device in regard to claim 1

(e.g.; column 139, lines 35-54);

Actuating an input module for furnishing a supply of input objects setting up a description of a workpiece for selection, and one or more input parameters that are interrogated belong to each input object, and furnishing a supply of measurement objects for selection, and links of selected measurement objects with input objects are brought about in regard to claim 8

(e.g.; column 139, lines 35-54);

Actuating a display module for displaying an image of a tool resulting from a selection of input objects and inputs in regard to claim 8

(e.g.; column 391, lines 41-44);

Actuating a machining program module for generating, on the basis of a selection of input objects and parameters input, a machine control program which serves to control a machine tool in regard to claim 8

(e.g.; column 139, lines 35-54);

And actuating a measurement program module for generating, from a selection of measurement objects and their linkage with input objects, a measurement program for controlling a measuring device in regard to claim 8

(e.g.; column 139, lines 35-54).

Hirai fails to teach and is silent regarding:
Each input object is linked with a machining operation, and the entirety of machining operations defines a machining task to be performed by a machine control program in regard to claim 2;

Each measurement object is linked with a measuring operation, and the entirety of measurement objects and the associated links defines the measurement task to be performed by a measuring device in regard to claim 4;

A measuring device is integrated with a machine tool in regard to claim 6;

And a measurement object is associated with a measuring operation, and measurement parameters are defined on the basis of selected input objects and associated input parameters in regard to claim 11.

Susnjara teaches:
Each input object is linked with a machining operation, and the entirety of machining operations defines a machining task to be performed by a machine control program in regard to claim 2

(e.g.; column 4, lines 29-63);

Each measurement object is linked with a measuring operation, and the entirety of measurement objects and the associated links defines the measurement task to be performed by a measuring device in regard to claim 4

(e.g.; column 4, lines 29-63);

A measuring device is integrated with a machine tool in regard to claim 6
(e.g.; column 3, lines 8-16; figure 1, elements 105 (measuring tool) and 111 (measuring device));

And a measurement object is associated with a measuring operation, and measurement parameters are defined on the basis of selected input objects and associated input parameters in regard to claim 11
(e.g.; column 4, lines 29-63).

In regard to claim 2, it would have been obvious to one skilled in the art at the time of the instant invention to modify the teaching of Hirai of an input module means with the teaching of Susnjara of input objects linked with a machining operation, and the entirety of machining operations defines a machining task to be performed by a machine control program because software modules would have provided for processing of programs according to machine-specific attributes, selection of operational attributes, and generation of NC code, all with a CNC machine control.

Regarding claim 4, it would have been obvious to one skilled in the art at the time of the instant invention to modify the teaching of Hirai of an input module means with the teaching of Susnjara of a measurement object is linked with a measuring operation, and the entirety of measurement objects and associated links define a measurement task to be performed by a measuring device software modules would have provided for processing of programs according to machine-specific attributes, selection of operational attributes, and generation of NC code, all with a CNC machine control.

Regarding claim 6, it would have been obvious to one skilled in the art at the time of the instant invention to modify the teaching of Hirai of a measurement program module means which selects measurement objects and their linkage with input objects, serves a measurement program for controlling a measuring device with the teaching of Susnjara of a measuring device is integrated with a machine tool because operations controlled by a programmable computer-numeric controller (CNC) 111 provide for movement of a tool mounted on a toolhead assembly along a motion path to perform a work function such as routing, shaping and drilling on a workpiece.

In regard to claim 11, it would have been obvious to one skilled in the art at the time of the instant invention to modify the teaching of Hirai of actuating an input module and furnishing a supply of measurement objects for selection with the teaching of Susnjara of a measurement object associated with a measuring operation, defining on the basis of selected input objects and associated input parameters, measurement parameters because CNC control code would have been generated based on program data and on attributes, which would have included machine-specific attributes, operational attributes and material-specific attributes, such as geometric shape and surface area data for a piece of material. NC control code would then have been executed as a workpiece processing program by a CNC machining system.

Allowable Subject Matter

3 Claims 10, and 13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

Claim 10 recites, in part, "the geometric model is displayed". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claim 13 recites, in part, "inspection points are among the measurement parameters". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claim 14 recites, in part, "monitoring is performed to determine whether inspection points are located on faces or edges of the geometric model". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claim 15 recites, in part, "a request for correction is output, or an automatic correction". This feature in combination with the remaining claimed structure avoids the prior art of record.

It is these limitations, which are not found, taught or suggested in the prior art of record, and are recited in the claimed combination that makes these claims allowable over the prior art.

Conclusion

4 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas N. Washburn whose telephone number is (571) 272-2284. The examiner can normally be reached on Monday through Thursday 6:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DNW

BRYAN BU
PRIMARY EXAM

5/31/05